

ABSTRACT OF THE DISCLOSURE

A corrosion-resistant iron-aluminum intermetallic alloy layer coating for steel includes at least a 1 micron thick layer of iron-aluminum intermetallic. An iron-aluminum intermetallic layer is formed by displacing an iron-zinc layer by exposing the iron-zinc layer to a bath containing greater than 10 to 12
5 total weight percent aluminum, 0.5 to 7 total weight percent magnesium, and the remainder of the bath being zinc with inevitable impurities with the proviso that the bath is substantially devoid of mischmetal or a rare earth metal constituent thereof.